GenCore version 4.5

OM protein - protein search, using sw model

Run on: September 22, 2000, 21:13:53 ; Search time 156.42 Seconds
(without alignments)
1.981 Million cell updates/sec

Title: US-09-061-388-1
Perfect score: 46
Sequence: 1 EAAGIGILTV 10

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 85661 seqs, 30989116 residues

Total number of hits satisfying chosen parameters: 690

Minimum DB seq length: 0
Maximum DB seq length: 15

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SwissProt_38:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	24	52.2	13	1	FIBA_CAVPO	P14445 cavia porce
2	21	45.7	10	1	TKU2_UREUN	P40752 urechis uni
3	21	45.7	15	1	DIDH_PSESP	P80701 pseudomonas
4	19	41.3	13	1	CRBL_ICASP	P17237 icaria sp.
5	19	41.3	14	1	COCO_LIMPO	P35586 limulus pol
6	18	39.1	15	1	UN04_PINPS	P81673 pinus pinas
7	17	37.0	10	1	VEG6_BACSU	P80699 bacillus su
8	17	37.0	12	1	OPS3_DROVI	P17645 drosophila
9	17	37.0	15	1	MILT_ONCKE	P81037 oncorhynchu
10	16	34.8	10	1	LABA_JATMU	P13270 jatropha mu
11	16	34.8	10	1	TKNC_RANCA	P22690 rana catesb
12	16	34.8	12	1	CD14_LITXA	P56246 litoria xan
13	16	34.8	13	1	PSBP_PINPS	P81668 pinus pinas
14	16	34.8	15	1	CDN2_LITGI	P56247 litoria gil
15	16	34.8	15	1	CDN3_LITGI	P56248 litoria gil
16	15	32.6	7	1	ALL2_CARMA	P81805 carcinus ma
17	15	32.6	9	1	MGMT_BOVIN	P29177 bos taurus
18	15	32.6	11	1	TKN_ELEMO	P01293 eledone mos
19	15	32.6	13	1	HPA1_RANES	P32415 rana escule
20	14	30.4	9	1	FAR9_ASCSU	P43172 ascaris suu
21	14	30.4	10	1	CU30_LOCMI	P11735 locusta mig
22	14	30.4	10	1	FARC_CALVO	P41867 calliphora
23	14	30.4	10	1	GAJU_HUMAN	P01358 homo sapien
24	14	30.4	10	1	TKNB_RANRI	P29135 rana ridibu
25	14	30.4	10	1	TKN_PHYBI	P08610 phyllomedus
26	14	30.4	10	1	TRP6_LEUMA	P81738 leucophaea
27	14	30.4	10	1	URA1_HUMAN	P32118 homo sapien
28	14	30.4	11	1	TKC2_CALVO	P41518 calliphora
29	14	30.4	11	1	TKNA_GADMO	P28498 gadus morhu
30	14	30.4	13	1	CHEP_PARID	P42718 parapolybia
31	14	30.4	13	1	FARB_ASCSU	P43173 ascaris suu
32	14	30.4	13	1	ORCK_ORCLI	P37086 orconectes
33	14	30.4	14	1	FIBA_HORSE	P14452 equus cabal
34	14	30.4	14	1	MAST_POLJA	P01517 polistes ja
35	14	30.4	14	1	TEMA_RANTE	P56917 rana tempor
36	14	30.4	14	1	TEMF_RANTE	P56921 rana tempor
37	14	30.4	15	1	FIBA_ANAPL	P12801 anas platyr
38	14	30.4	15	1	FIBA_SYNCA	P14463 syncerus ca
39	14	30.4	15	1	KLOM_LUMTE	P11918 lumbricus t
40	14	30.4	15	1	METK_MAIZE	P80616 zea mays (m
41	14	30.4	15	1	RKGG_CARCR	P21586 caretta car
42	14	30.4	15	1	RL11_STRAU	Q9x520 streptomyce
43	13	28.3	8	1	UPAA_HUMAN	P30096 homo sapien
44	13	28.3	8	1	VGLG_HSV2B	P81780 herpes simp
45	13	28.3	9	1	DSIP_RABIT	P01158 oryctolagus

ALIGNMENTS

RESULT 1
FIBA_CAVPO
ID FIBA_CAVPO STANDARD; PRT; 13 AA.
AC P14445;
DT 01-JAN-1990 (Rel. 13, Created)
DT 01-JAN-1990 (Rel. 13, Last sequence update)
DT 01-JAN-1990 (Rel. 13, Last annotation update)
DE FIBRINOPEPTIDE A.
OS Cavia porcellus (Guinea pig).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Hystricognathi; Caviidae; Cavia.
RN [1]
RP SEQUENCE.
RA Blomback B., Blomback M., Grondahl N.J.;
RT "Studies on fibrinopeptides from mammals.";
RL Acta Chem. Scand. 19:1789-1791(1965).
CC -!- FUNCTION: FIBRINOGEN HAS A DOUBLE FUNCTION: YIELDING MONOMERS THAT
CC POLYMERIZE INTO FIBRIN AND ACTING AS A COFACTOR IN PLATELET
CC AGGREGATION.
CC -!- SUBUNIT: HEXAMER CONTAINING 2 SETS OF 3 NONIDENTICAL CHAINS
CC (ALPHA, BETA, & GAMMA), LINKED TO EACH OTHER BY DISULFIDE BONDS.
CC -!- MISCELLANEOUS: CONVERSION OF FIBRINOGEN TO FIBRIN IS TRIGGERED BY
CC THROMBIN, WHICH CLEAVES FIBRINOPEPTIDES A AND B FROM ALPHA & BETA
CC CHAINS, AND THUS EXPOSES THE N-TERMINAL POLYMERIZATION SITES
CC RESPONSIBLE FOR THE FORMATION OF THE SOFT CLOT.
KW Blood coagulation; Plasma.
FT NON_TER 13 13
SQ SEQUENCE 13 AA; 1309 MW; 639999286C79DDDB CRC64;

Query Match 52.2%; Score 24; DB 1; Length 13;
Best Local Similarity 71.4%; Pred. No. 1.1e+02;
Matches 5; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

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Qy      1 EAAGIGI 7
          |||| |:
Db      6 EAAGGGV 12
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RESULT 2
TKU2_UREUN
ID TKU2_UREUN STANDARD; PRT; 10 AA.
AC P40752;
DT 01-FEB-1995 (Rel. 31, Created)
DT 01-FEB-1995 (Rel. 31, Last sequence update)
DT 01-NOV-1995 (Rel. 32, Last annotation update)
DE URECHISTACHYKININ II.
OS Urechis unicinctus.
OC Eukaryota; Metazoa; Echiura; Xenopneusta; Urechidae; Urechis.
RN [1]
RP SEQUENCE, AND SYNTHESIS.
RC TISSUE=VENTRAL NERVE CORD;
RX MEDLINE; 93236558.
RA Ikeda T., Minakata H., Nomoto K., Kubota I., Muneoka Y.;
RT "Two novel tachykinin-related neuropeptides in the echiuroid worm,
RT Urechis unicinctus.";

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RL   Biochem. Biophys. Res. Commun. 192:1-6(1993).
CC   -!- FUNCTION: CONTRACTILE ACTION ON THE INNER CIRCULAR BODY-WALL
CC       MUSCLE OF THE ANIMAL.
CC   -!- SIMILARITY: SOME SIMILARITY TO TACHYKININS.
KW   Tachykinin; Neuropeptide; Amidation.
FT   MOD_RES      10     10       AMIDATION.
SQ   SEQUENCE   10 AA;  984 MW;  3F58DD79C9C87698 CRC64;


  Query Match             45.7%;  Score 21;  DB 1;  Length 10;
  Best Local Similarity   80.0%;  Pred. No. 3.2e+02;
  Matches    4;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      2 AAGIG 6
          |||:|
Db      1 AAGMG 5


RESULT   3
DIDH_PSESP
ID   DIDH_PSESP     STANDARD;      PRT;    15 AA.
AC   P80701;
DT   01-OCT-1996 (Rel. 34, Created)
DT   01-OCT-1996 (Rel. 34, Last sequence update)
DT   01-NOV-1997 (Rel. 35, Last annotation update)
DE   3-ALPHA-HYDROXYSTEROID DEHYDROGENASE (EC 1.1.1.50) (3-ALPHA-HSD)
DE   (HYDROXYPROSTAGLANDIN DEHYDROGENASE) (HSD29) (FRAGMENT).
OS   Pseudomonas sp.
OC   Bacteria; Proteobacteria.
RN   [1]
RP   SEQUENCE.
RX   MEDLINE; 97100200.
RA   Oppermann U.C.T., Maser E.;
RT   "Characterization of a 3 alpha-hydroxysteroid dehydrogenase/carbonyl
RT   reductase from the gram-negative bacterium Comamonas testosteroni.";
RL   Eur. J. Biochem. 241:744-749(1996).
CC   -!- FUNCTION: ALONG WITH THE 3 ALPHA-HYDROXYSTEROID DEHYDROGENASE AND
CC       3-OXO-REDUCTASE ACTIVITIES TOWARDS A VARIETY OF CIS OR TRANS FUSED
CC       A/B RING STEROIDS, IT ALSO REDUCES SEVERAL XENOBIOTIC CARBONYL
CC       COMPOUNDS, INCLUDING A METYRAPONE-BASED CLASS OF INSECTICIDES, TO
CC       THE RESPECTIVE ALCOHOL METABOLITES.
CC   -!- CATALYTIC ACTIVITY: ANDROSTERONE + NAD(P)(+) =
CC       5-ALPHA-ANDROSTANE-3,17-DIONE + NAD(P)H.
CC   -!- SUBCELLULAR LOCATION: CYTOPLASMIC.
CC   -!- SIMILARITY: BELONGS TO THE SHORT-CHAIN DEHYDROGENASES/REDUCTASES
CC       (SDR) FAMILY.
DR   PROSITE; PS00061; ADH_SHORT; PARTIAL.
KW   Oxidoreductase; NAD.
FT   DOMAIN       6    >15       INVOLVED IN COFACTOR BINDING
FT                               (BY SIMILARITY).
FT   NON_TER     15     15
SQ   SEQUENCE   15 AA;  1315 MW;  9506860D070A7790 CRC64;


  Query Match             45.7%;  Score 21;  DB 1;  Length 15;
  Best Local Similarity   80.0%;  Pred. No. 4.6e+02;
  Matches    4;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      2 AAGIG 6
          |:|||
Db      9 ASGIG 13


RESULT   4
CRBL_ICASP
ID   CRBL_ICASP     STANDARD;      PRT;    13 AA.
AC   P17237;
DT   01-AUG-1990 (Rel. 15, Created)
DT   01-AUG-1990 (Rel. 15, Last sequence update)
DT   15-DEC-1998 (Rel. 37, Last annotation update)
DE   CHEMOTACTIC PEPTIDE (I-CP).
OS   Icaria sp. (Ropalidian wasp).
OC   Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
OC   Pterygota; Neoptera; Endopterygota; Hymenoptera; Apocrita; Aculeata;
OC   Vespoidea; Vespidae; Polistinae; Icaria.
RN   [1]
RP   SEQUENCE.
RC   TISSUE=VENOM;
RA   Yasuhara T., Itokawa H., Suzuki N., Nakamura H., Nakajima T.;
RL   (In) Izumiya N. (eds.);
RL   Peptide chemistry 1984, pp.177-182, Protein Research Foundation,
RL   Osaka (1985).
CC   -!- FUNCTION: MAST CELL DEGRANULATING PEPTIDE. INDUCES THE CHEMOTAXIS
CC       OF NEUTROPHILS.
KW   Mast cell degranulation; Chemotaxis; Venom; Amidation.
FT   MOD_RES      13     13       AMIDATION.
SQ   SEQUENCE   13 AA;  1353 MW;  348DBC7AA30A3768 CRC64;


  Query Match             41.3%;  Score 19;  DB 1;  Length 13;
  Best Local Similarity   60.0%;  Pred. No. 9.5e+02;
  Matches    3;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      5 IGILT 9
          :|:||
Db      9 LGLLT 13


RESULT   5
COCO_LIMPO
ID   COCO_LIMPO     STANDARD;      PRT;    14 AA.
AC   P35586;
DT   01-JUN-1994 (Rel. 29, Created)
DT   01-JUN-1994 (Rel. 29, Last sequence update)
DT   15-DEC-1998 (Rel. 37, Last annotation update)
DE   COCOONASE (EC 3.4.21.-) (FRAGMENT).
OS   Limulus polyphemus (Atlantic horseshoe crab).
OC   Eukaryota; Metazoa; Arthropoda; Chelicerata; Merostomata; Xiphosura;
OC   Limulidae; Limulus.
RN   [1]
RP   SEQUENCE.
RX   MEDLINE; 78037243.
RA   Law J.H., Dunn P.E., Kramer K.J.;
RT   "Insect proteases and peptidases.";
RL   Adv. Enzymol. Relat. Areas Mol. Biol. 45:389-425(1977).
CC   -!- CATALYTIC ACTIVITY: PREFERENTIAL CLEAVAGE: ARG-, LYS-.
CC   -!- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC   -!- SIMILARITY: BELONGS TO PEPTIDASE FAMILY S1; ALSO KNOWN AS THE
CC       TRYPSIN FAMILY.
DR   HSSP; P00760; 4TPI.
DR   PROSITE; PS00134; TRYPSIN_HIS; PARTIAL.
DR   PROSITE; PS00135; TRYPSIN_SER; PARTIAL.
KW   Hydrolase; Serine protease.
FT   NON_TER     14     14
SQ   SEQUENCE   14 AA;  1452 MW;  1615FB1D73747570 CRC64;


  Query Match             41.3%;  Score 19;  DB 1;  Length 14;
  Best Local Similarity   83.3%;  Pred. No. 1e+03;
  Matches    5;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy      5 IGILTV 10
          ||| ||
Db      7 IGIDTV 12


RESULT   6
UN04_PINPS
ID   UN04_PINPS     STANDARD;      PRT;    15 AA.
AC   P81673;
DT   15-JUL-1999 (Rel. 38, Created)
DT   15-JUL-1999 (Rel. 38, Last sequence update)
DT   15-JUL-1999 (Rel. 38, Last annotation update)
DE   UNKNOWN PROTEIN FROM 2D-PAGE OF NEEDLES (N143) (FRAGMENT).
OS   Pinus pinaster (Maritime pine).
OC   Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;
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OC   Coniferopsida; Coniferales; Pinaceae; Pinus.
RN   [1]
RP   SEQUENCE.
RC   TISSUE=NEEDLE;
RX   MEDLINE; 99274088.
RA   Costa P., Pionneau C., Bauw G., Dubos C., Bahrman N., Kremer A.,
RA   Frigerio J.-M., Plomion C.;
RT   "Separation and characterization of needle and xylem maritime pine
RT   proteins.";
RL   Electrophoresis 20:1098-1108(1999).
CC   -!- INDUCTION: BY WATER-STRESS.
CC   -!- MISCELLANEOUS: ON THE 2D-GEL THE DETERMINED PI OF THIS UNKNOWN
CC       PROTEIN IS: 6.2, ITS MW IS: 21 KDA.
FT   NON_TER       1      1
FT   NON_TER      15     15
SQ   SEQUENCE   15 AA;  1489 MW;  CE4D85E99308227A CRC64;


  Query Match             39.1%;  Score 18;  DB 1;  Length 15;
  Best Local Similarity   66.7%;  Pred. No. 1.6e+03;
  Matches    4;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1 EAAGIG 6
           |||  |
Db       6 EAAAAG 11


RESULT   7
VEG6_BACSU
ID   VEG6_BACSU     STANDARD;      PRT;    10 AA.
AC   P80699;
DT   01-OCT-1996 (Rel. 34, Created)
DT   01-OCT-1996 (Rel. 34, Last sequence update)
DT   15-JUL-1998 (Rel. 36, Last annotation update)
DE   VEGETATIVE PROTEIN 6 (VEG6) (FRAGMENT).
GN   YZZI.
OS   Bacillus subtilis.
OC   Bacteria; Firmicutes; Bacillus/Clostridium group;
OC   Bacillus/Staphylococcus group; Bacillus.
RN   [1]
RP   SEQUENCE.
RC   STRAIN=IS58;
RX   MEDLINE; 97237728.
RA   Schmid R., Bernhardt J., Antelmann H., Voelker U., Mach H.,
RA   Voelker A., Hecker M.;
RT   "Identification of vegetative proteins for a two-dimensional protein
RT   index of Bacillus subtilis.";
RL   Microbiology 143:991-998(1997).
DR   SUBTILIST; BG19024; yzzI.
FT   NON_TER      10     10
SQ   SEQUENCE   10 AA;  973 MW;  8793A6B2C8772861 CRC64;


  Query Match             37.0%;  Score 17;  DB 1;  Length 10;
  Best Local Similarity   50.0%;  Pred. No. 1.8e+03;
  Matches    2;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4 GIGI 7
           |:|:
Db       4 GLGV 7


RESULT   8
OPS3_DROVI
ID   OPS3_DROVI     STANDARD;      PRT;    12 AA.
AC   P17645;
DT   01-AUG-1990 (Rel. 15, Created)
DT   01-AUG-1990 (Rel. 15, Last sequence update)
DT   01-FEB-1996 (Rel. 33, Last annotation update)
DE   OPSIN RH3 (INNER R7 PHOTORECEPTOR CELLS OPSIN) (FRAGMENT).
GN   RH3.
OS   Drosophila virilis (Fruit fly).
OC   Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
OC   Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
OC   Ephydroidea; Drosophilidae; Drosophila.
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE; 90249748.
RA   Fortini M.E., Rubin G.M.;
RT   "Analysis of cis-acting requirements of the Rh3 and Rh4 genes reveals
RT   a bipartite organization to rhodopsin promoters in Drosophila
RT   melanogaster.";
RL   Genes Dev. 4:444-463(1990).
CC   -!- FUNCTION: VISUAL PIGMENTS ARE THE LIGHT-ABSORBING MOLECULES THAT
CC       MEDIATE VISION. THEY CONSIST OF AN APOPROTEIN, OPSIN, COVALENTLY
CC       LINKED TO CIS-RETINAL.
CC   -!- SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN.
CC   -!- MISCELLANEOUS: EACH DROSOPHILA EYE IS COMPOSED OF 800 FACETS OR
CC       OMMATIDIA. EACH OMMATIDIUM CONTAINS 8 PHOTORECEPTOR CELLS (R1-R8),
CC       THE R1 TO R6 CELLS ARE OUTER CELLS, WHILE R7 AND R8 ARE INNER
CC       CELLS.
CC   -!- MISCELLANEOUS: OPSIN RH3 IS SENSITIVE TO UV LIGHT.
CC   -!- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
CC       OPSIN SUBFAMILY.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; X51350; CAA35742.1; -.
DR   GCRDB; GCR_0779; -.
DR   FLYBASE; FBgn0013091; Dvir\Rh3.
DR   PROSITE; PS00237; G_PROTEIN_RECEPTOR; PARTIAL.
DR   PROSITE; PS00238; OPSIN; PARTIAL.
KW   Photoreceptor; Retinal protein; Transmembrane; Phosphorylation;
KW   Glycoprotein; G-protein coupled receptor; Vision.
FT   CARBOHYD     10     10       PROBABLE.
FT   NON_TER      12     12
SQ   SEQUENCE   12 AA;  1253 MW;  04024E43495865B0 CRC64;


  Query Match             37.0%;  Score 17;  DB 1;  Length 12;
  Best Local Similarity   75.0%;  Pred. No. 2.1e+03;
  Matches    3;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       3 AGIG 6
           :|||
Db       6 SGIG 9


RESULT   9
MILT_ONCKE
ID   MILT_ONCKE     STANDARD;      PRT;    15 AA.
AC   P81037;
DT   01-NOV-1997 (Rel. 35, Created)
DT   01-NOV-1997 (Rel. 35, Last sequence update)
DT   15-DEC-1998 (Rel. 37, Last annotation update)
DE   MILTPAIN (EC 3.4.22.-) (FRAGMENT).
OS   Oncorhynchus keta (Chum salmon).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Actinopterygii; Neopterygii; Teleostei; Euteleostei;
OC   Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
RN   [1]
RP   SEQUENCE, AND CHARACTERIZATION.
RX   MEDLINE; 97397031.
RA   Kawabata C., Ichishima E.;
RT   "Miltpain, new cysteine proteinase from the milt of chum salmon,
RT   Oncorhynchus keta.";
RL   Comp. Biochem. Physiol. 117B:445-452(1997).
CC   -!- FUNCTION: CYSTEINE PROTEINASE THAT HYDROLYSES BASIC PROTEINS.
CC       HYDROLYZE BASIC PROTEINS SUCH AS HISTONE, SALMINE AND CLUPAINE BUT
CC       NOT MILK CASEIN.
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CC   -!- CATALYTIC ACTIVITY: PREFERENTIAL CLEAVAGE WITH BASIC RESIDUES AT
CC       P2 AND P1.
KW   Hydrolase.
FT   NON_TER      15     15
SQ   SEQUENCE   15 AA;  1730 MW;  766B7771C0F888E7 CRC64;


  Query Match             37.0%;  Score 17;  DB 1;  Length 15;
  Best Local Similarity   50.0%;  Pred. No. 2.5e+03;
  Matches    4;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1 EAAGIGIL 8
           |  |  ||
Db       8 EMVGYNIL 15


RESULT  10
LABA_JATMU
ID   LABA_JATMU     STANDARD;      PRT;     10 AA.
AC   P13270;
DT   01-JAN-1990 (Rel. 13, Created)
DT   01-JAN-1990 (Rel. 13, Last sequence update)
DT   01-OCT-1996 (Rel. 34, Last annotation update)
DE   LABADITIN.
OS   Jatropha multifida (Physic nut).
OC   Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;
OC   Magnoliophyta; eudicotyledons; Rosidae; eurosids I; Malpighiales;
OC   Euphorbiaceae; Jatropha.
RN   [1]
RP   SEQUENCE.
RC   TISSUE=LATEX;
RA   Kosasi S., van der Sluis W.G., Boelens R., T Hart L.A., Labadie R.P.;
RT   "Labaditin, a novel cyclic decapeptide from the latex of Jatropha
RT   multifida L. (Euphorbiaceae). Isolation and sequence determination
RT   by means of two-dimensional NMR.";
RL   FEBS Lett. 256:91-96(1989).
CC   -!- FUNCTION: LABADITIN IS AN ACTIVE PEPTIDE WHICH INHIBITS THE
CC       CLASSICAL PATHWAY OF COMPLEMENT ACTIVATION IN VITRO. ACTIVITY
CC       SEEMS TO BE BASED ON AN INTERACTIN WITH C1.
CC   -!- DISEASE: LATEX OF THIS PLANT IS USED IN FOLKLORIC MEDICINE FOR
CC       TREATMENT OF INFECTED WOUNDS, SKINS INFECTIONS AND SCABIES.
CC   -!- CAUTION: THIS IS A CYCLIC PEPTIDE.
KW   Latex.
SQ   SEQUENCE   10 AA;  1089 MW;  D98AAD6362D1B362 CRC64;


  Query Match             34.8%;  Score 16;  DB 1;  Length 10;
  Best Local Similarity   60.0%;  Pred. No. 2.7e+03;
  Matches    3;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       6 GILTV 10
           |: ||
Db       2 GVWTV 6


RESULT  11
TKNC_RANCA
ID   TKNC_RANCA     STANDARD;      PRT;     10 AA.
AC   P22690;
DT   01-AUG-1991 (Rel. 19, Created)
DT   01-AUG-1991 (Rel. 19, Last sequence update)
DT   15-FEB-2000 (Rel. 39, Last annotation update)
DE   RANATACHYKININ C (RTK C).
OS   Rana catesbeiana (Bull frog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae; Rana.
RN   [1]
RP   SEQUENCE, AND SYNTHESIS.
RC   TISSUE=INTESTINE;
RX   MEDLINE; 91254337.
RA   Kozawa H., Hino J., Minamino N., Kangawa K., Matsuo H.;
RT   "Isolation of four novel tachykinins from frog (Rana catesbeiana)
RT   brain and intestine.";
RL   Biochem. Biophys. Res. Commun. 177:588-595(1991).
RN   [2]
RP   SEQUENCE.
RC   TISSUE=INTESTINE;
RX   MEDLINE; 94023216.
RA   Kangawa K., Kozawa H., Hino J., Minamino N., Matsuo H.;
RT   "Four novel tachykinins in frog (Rana catesbeiana) brain and
RT   intestine.";
RL   Regul. Pept. 46:81-88(1993).
CC   -!- FUNCTION: TACHYKININS ARE ACTIVE PEPTIDES WHICH EXCITE NEURONS,
CC       EVOKE BEHAVIORAL RESPONSES, ARE POTENT VASODILATORS AND
CC       SECRETAGOGUES, AND CONTRACT (DIRECTLY OR INDIRECTLY) MANY SMOOTH
CC       MUSCLES.
CC   -!- SIMILARITY: BELONGS TO THE TACHYKININ FAMILY.
DR   PIR; JE0428; JE0428.
DR   PIR; C61033; C61033.
DR   PROSITE; PS00267; TACHYKININ; 1.
KW   Tachykinin; Neuropeptide; Amidation.
FT   MOD_RES      10     10       AMIDATION.
SQ   SEQUENCE   10 AA;  1086 MW;  3A3A407059D5BDC7 CRC64;


  Query Match             34.8%;  Score 16;  DB 1;  Length 10;
  Best Local Similarity   42.9%;  Pred. No. 2.7e+03;
  Matches    3;  Conservative    3;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2 AAGIGIL 8
           |: ||::
Db       4 ASFIGLM 10


RESULT  12
CD14_LITXA
ID   CD14_LITXA     STANDARD;      PRT;     12 AA.
AC   P56246;
DT   15-JUL-1998 (Rel. 36, Created)
DT   15-JUL-1998 (Rel. 36, Last sequence update)
DT   15-DEC-1998 (Rel. 37, Last annotation update)
DE   CAERIDIN 1.4.
OS   Litoria xanthomera (Orange-thighed frog), and
OS   Litoria chloris (Blue-thighed frog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Amphibia; Batrachia; Anura; Neobatrachia; Bufonoidea; Hylidae;
OC   Litoria.
RN   [1]
RP   SEQUENCE, AND MASS SPECTROMETRY.
RC   SPECIES=L.XANTHOMERA;
RX   MEDLINE; 97374000.
RA   Steinborner S.T., Waugh R.J., Bowie J.H., Wallace J.C., Tyler M.J.,
RA   Ramsay S.L.;
RT   "New caerin antibacterial peptides from the skin glands of the
RT   Australian tree frog Litoria xanthomera.";
RL   J. Pept. Sci. 3:181-185(1997).
RN   [2]
RP   SEQUENCE.
RC   SPECIES=L.CHLORIS; TISSUE=SKIN;
RX   MEDLINE; 98175802.
RA   Steinborner S.T., Currie G.J., Bowie J.H., Wallace J.C., Tyler M.J.;
RT   "New antibiotic caerin 1 peptides from the skin secretion of the
RT   Australian tree frog Litoria chloris. Comparison of the activities of
RT   the caerin 1 peptides from the genus Litoria.";
RL   J. Pept. Res. 51:121-126(1998).
CC   -!- FUNCTION: CAERIDINS SHOW NEITHER NEUROPEPTIDE ACTIVITY NOR
CC       ANTIBIOTIC ACTIVITY.
CC   -!- TISSUE SPECIFICITY: SECRETED BY THE SKIN DORSAL GLANDS.
CC   -!- MASS SPECTROMETRY: MW=1096; METHOD=FAB.
KW   Amphibian skin; Amidation.
FT   MOD_RES      12     12       AMIDATION.
SQ   SEQUENCE   12 AA;  1097 MW;  28225503E3772728 CRC64;


  Query Match             34.8%;  Score 16;  DB 1;  Length 12;
  Best Local Similarity   50.0%;  Pred. No. 3.1e+03;
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  Matches    2;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4 GIGI 7
           |:|:
Db       9 GLGL 12


RESULT  13
PSBP_PINPS
ID   PSBP_PINPS     STANDARD;      PRT;    13 AA.
AC   P81668;
DT   15-JUL-1999 (Rel. 38, Created)
DT   15-JUL-1999 (Rel. 38, Last sequence update)
DT   15-JUL-1999 (Rel. 38, Last annotation update)
DE   OXYGEN-EVOLVING ENHANCER PROTEIN 2 (OEE2) (23 KDA SUBUNIT OF OXYGEN
DE   EVOLVING SYSTEM OF PHOTOSYSTEM II) (FRAGMENT).
GN   PSBP.
OS   Pinus pinaster (Maritime pine).
OC   Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;
OC   Coniferopsida; Coniferales; Pinaceae; Pinus.
RN   [1]
RP   SEQUENCE.
RC   TISSUE=NEEDLE;
RX   MEDLINE; 99274088.
RA   Costa P., Pionneau C., Bauw G., Dubos C., Bahrman N., Kremer A.,
RA   Frigerio J.-M., Plomion C.;
RT   "Separation and characterization of needle and xylem maritime pine
RT   proteins.";
RL   Electrophoresis 20:1098-1108(1999).
CC   -!- FUNCTION: ASSOCIATED WITH THE OXYGEN-EVOLVING COMPLEX OF
CC       PHOTOSYSTEM II (BY SIMILARITY).
CC   -!- SUBCELLULAR LOCATION: CHLOROPLAST THYLAKOID MEMBRANE; ASSOCIATED
CC       WITH THE PHOTOSYSTEM II COMPLEX (BY SIMILARITY).
CC   -!- MISCELLANEOUS: ON THE 2D-GEL THE DETERMINED PI OF THIS PROTEIN
CC       (SPOT N179) IS: 5.9, ITS MW IS: 22 KDA.
CC   -!- SIMILARITY: TO OTHER OEE2 SUBUNITS.
KW   Photosynthesis; Photosystem II; Chloroplast; Thylakoid membrane.
FT   NON_TER      13     13
SQ   SEQUENCE   13 AA;  1294 MW;  C6772B0D54D7C44D CRC64;


  Query Match             34.8%;  Score 16;  DB 1;  Length 13;
  Best Local Similarity   60.0%;  Pred. No. 3.4e+03;
  Matches    3;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1 EAAGI 5
           ||| :
Db       4 EAANV 8


RESULT  14
CDN2_LITGI
ID   CDN2_LITGI     STANDARD;      PRT;    15 AA.
AC   P56247;
DT   15-JUL-1998 (Rel. 36, Created)
DT   15-JUL-1998 (Rel. 36, Last sequence update)
DT   15-JUL-1998 (Rel. 36, Last annotation update)
DE   CAERIDIN 2.
OS   Litoria gilleni.
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Amphibia; Batrachia; Anura; Neobatrachia; Bufonoidea; Hylidae;
OC   Litoria.
RN   [1]
RP   SEQUENCE, AND MASS SPECTROMETRY.
RC   TISSUE=PAROTOID GLAND;
RA   Waugh R.J., Stone D.J.M., Bowie J.H., Wallace J.C., Tyler M.J.;
RT   "Peptides from Australian frogs. The structures of the caerins and
RT   caeridins from Litoria gilleni.";
RL   J. Chem. Res. 139:937-961(1993).
CC   -!- FUNCTION: CAERIDINS SHOW NEITHER NEUROPEPTIDE ACTIVITY NOR
CC       ANTIBIOTIC ACTIVITY.
CC   -!- TISSUE SPECIFICITY: SECRETED BY THE SKIN PAROTOID AND/OR ROSTRAL
CC       GLANDS.
CC   -!- MASS SPECTROMETRY: MW=1408; METHOD=FAB.
KW   Amphibian skin; Amidation.
FT   MOD_RES      15     15       AMIDATION.
SQ   SEQUENCE   15 AA;  1410 MW;  06F1BBF272550CBF CRC64;


  Query Match             34.8%;  Score 16;  DB 1;  Length 15;
  Best Local Similarity   50.0%;  Pred. No. 3.8e+03;
  Matches    2;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4 GIGI 7
           |:|:
Db      12 GLGL 15


RESULT  15
CDN3_LITGI
ID   CDN3_LITGI     STANDARD;      PRT;    15 AA.
AC   P56248;
DT   15-JUL-1998 (Rel. 36, Created)
DT   15-JUL-1998 (Rel. 36, Last sequence update)
DT   15-JUL-1998 (Rel. 36, Last annotation update)
DE   CAERIDIN 3.
OS   Litoria gilleni.
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Amphibia; Batrachia; Anura; Neobatrachia; Bufonoidea; Hylidae;
OC   Litoria.
RN   [1]
RP   SEQUENCE, AND MASS SPECTROMETRY.
RC   TISSUE=PAROTOID GLAND;
RA   Waugh R.J., Stone D.J.M., Bowie J.H., Wallace J.C., Tyler M.J.;
RT   "Peptides from Australian frogs. The structures of the caerins and
RT   caeridins from Litoria gilleni.";
RL   J. Chem. Res. 139:937-961(1993).
CC   -!- FUNCTION: CAERIDINS SHOW NEITHER NEUROPEPTIDE ACTIVITY NOR
CC       ANTIBIOTIC ACTIVITY.
CC   -!- TISSUE SPECIFICITY: SECRETED BY THE SKIN PAROTOID AND/OR ROSTRAL
CC       GLANDS.
CC   -!- MASS SPECTROMETRY: MW=1428; METHOD=FAB.
KW   Amphibian skin; Amidation.
FT   MOD_RES      15     15       AMIDATION.
SQ   SEQUENCE   15 AA;  1430 MW;  06E90A797AF70CBF CRC64;


  Query Match             34.8%;  Score 16;  DB 1;  Length 15;
  Best Local Similarity   50.0%;  Pred. No. 3.8e+03;
  Matches    2;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4 GIGI 7
           |:|:
Db      12 GLGL 15


Search completed: September 22, 2000, 22:43:03
Job time: 5350 sec
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GenCore version 4.5

OM protein - protein search, using sw model

Run on: September 22, 2000, 18:25:12 ; Search time 275.57 Seconds
(without alignments)
0.860 Million cell updates/sec

Title: US-09-061-388-1
Perfect score: 46
Sequence: 1 EAAGIGILTV 10

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 188963 seqs, 23686106 residues

Total number of hits satisfying chosen parameters: 76368

Minimum DB seq length: 0
Maximum DB seq length: 15

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_36:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	46	100.0	10	1	R84197	MART-1 melanoma an
2	46	100.0	10	1	W07380	MART-1 epitope rec
3	46	100.0	10	1	W22039	Antigenic MART-1 p
4	46	100.0	10	1	W32269	Tumour rejection a
5	46	100.0	10	1	W39447	Human HLA-A*0201 i
6	46	100.0	10	1	W54809	Peptide 1 from Mar
7	46	100.0	10	1	W98939	Human leukocyte an
8	46	100.0	10	1	Y00712	Tumour antigen boo
9	46	100.0	10	1	Y01750	Exemplary antigeni
10	41	89.1	9	1	R84196	MART-1 melanoma an
11	41	89.1	9	1	W07379	MART-1 epitope rec
12	41	89.1	9	1	W35512	MART-1/Melan-A pro
13	41	89.1	9	1	W39430	Human immunogenic
14	41	89.1	9	1	W42523	Melan A/MART epito
15	41	89.1	9	1	W54602	Peptide 1 from Mel
16	41	89.1	9	1	W68380	Human MART1/MELAN-
17	41	89.1	9	1	W77123	MART-1/MelanA synt
18	41	89.1	9	1	W98938	Human leukocyte an
19	41	89.1	9	1	Y00713	Tumour antigen boo
20	41	89.1	9	1	Y10601	HLA Class I motif
21	41	89.1	9	1	Y10567	HLA Class I motif
22	41	89.1	9	1	Y10444	HLA Class I motif
23	41	89.1	9	1	Y01751	Exemplary antigeni
24	41	89.1	10	1	R84198	MART-1 melanoma an
25	41	89.1	10	1	W07381	MART-1 epitope rec
26	41	89.1	10	1	W98934	Human leukocyte an
27	41	89.1	10	1	W98935	Human leukocyte an
28	41	89.1	10	1	W98936	Human leukocyte an
29	41	89.1	10	1	W98922	Human leukocyte an
30	41	89.1	10	1	W98923	Human leukocyte an
31	41	89.1	10	1	W98924	Human leukocyte an
32	41	89.1	10	1	W98925	Human leukocyte an
33	41	89.1	10	1	W98926	Human leukocyte an
34	41	89.1	10	1	W98927	Human leukocyte an
35	41	89.1	10	1	W98928	Human leukocyte an
36	41	89.1	12	1	W22038	Antigenic MART-1 p
37	37	80.4	9	1	R84787	Modified MART-1 me
38	37	80.4	9	1	R84788	Modified MART-1 me
39	37	80.4	9	1	R84786	Modified MART-1 me
40	37	80.4	9	1	W42524	Melan A/MART (resi
41	37	80.4	9	1	W42525	Melan A/MART epito
42	37	80.4	9	1	W42532	Melan A/MART epito
43	37	80.4	9	1	W45778	Melan A/MART epito
44	37	80.4	9	1	W98932	Human leukocyte an
45	37	80.4	9	1	W98933	Human leukocyte an

ALIGNMENTS

RESULT 1
R84197
ID R84197 standard; Peptide; 10 AA.
AC R84197;
DT 20-APR-1996 (first entry)
DE MART-1 melanoma antigen immunogenic peptide M10-3 derivative.
KW MART-1; M10-3; melanoma antigen recognised by T-cells; melanoma;
KW metastatic melanoma; tumour-associated antigen;
KW immunogenic peptide; diagnosis; prognosis; prophylaxis;
KW therapy; vaccine.
OS Synthetic.
PN WO9529193-A2.
PD 02-NOV-1995.
PF 21-APR-1995; U05063.
PR 22-APR-1994; US-231565.
PR 05-APR-1995; US-417174.
PA (USSH) US SEC DEPT HEALTH.
PI Kawakami Y, Rosenberg SA;
DR WPI; 95-382963/49.
PT DNA encoding melanoma antigens recognised by T-lymphocytes - also
PT vectors, host cells and antibodies, used to detect, treat and
PT immunise animal against melanoma.
PS Claim 12; Page 122; 184pp; English.
CC Immunogenic peptide M10-3 is a derivative of peptide M9-2 (R84196)
CC which is based on the melanoma antigen (MART-1) (see R84212).
CC M9-2 may be modified to improve immunogenicity (see R84783-R84800)
CC and used in medicaments for the treatment or prevention (by
CC immunization) of melanoma. Antibodies against MART-1 and its
CC immunogenic peptides may be used in the detection and isolation of
CC MART-1 from a sample, the detection of which is indicative of a
CC disease state (melanoma or metastatic melanoma).
CC See also R84198
SQ Sequence 10 AA;

Query Match 100.0%; Score 46; DB 1; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.002;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy      1 EAAGIGILTV 10
          ||||||||||
Db      1 EAAGIGILTV 10
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RESULT 2
W07380
ID W07380 standard; Peptide; 10 AA.
AC W07380;
DT 28-JUL-1997 (first entry)
DE MART-1 epitope recognised by melanoma specific T cell receptor.
KW T cell; receptor; lymphocyte; alpha; beta chain; V; variable;
KW J; joining; D; diversity; gene segment; probe; detection;
KW recombination; melanoma; cancer; neoplasia; tumour; diagnosis;
KW MART; Melanoma Antigen Recognised by T lymphocyte.
OS Homo sapiens.
PN WO9630516-A1.

PD 03-OCT-1996.
PF 27-MAR-1996; U04143.
PR 27-MAR-1995; US-411098.
PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
PI Hwu P, Nishimura M, Rosenberg SA;
DR WPI; 96-485449/48.
PT T cell receptor alpha and/or beta chains, and related nucleic acids
PT - useful in pharmaceutical compsns. to prevent or treat cancer,
PT partic. lung, melanoma, ovarian, colon, brain or kidney tumours
PS Example 3; Page 11; 125pp; English
CC W07378-W07381 are MART-1 epitopes, M9-1, M9-2, M10-3 and M10-4
CC respectively, that are recognised by melanoma specific T lymphocyte
CC receptors (TCRs). Melanoma-specific TCRs comprising an alpha and
CC beta chain were made. Nucleic acids from either of these chains can be
CC used as probes for the detection of expression of rearranged genes
CC encoding tumour-associated antigens. The nucleic acids may also be used
CC to create transgenic animals, useful as biological models to study cancer
CC and evaluate diagnostic and therapeutic methods for the treatment of
CC cancers, particularly melanomas. Antibodies (Abs) may be raised against
CC alpha and beta chain polypeptides and used to detect native or denatured
CC TCRs and/or alterations in expression levels of T cells carrying
CC melanoma-specific TCRs. Abs can also purify and enrich T cells carrying
CC the above receptors, which can then be administered therapeutically to
CC mammals. Anti-idiotype antibodies can be used to assess the level of a
CC specific T cell carrying these receptors in a mammal being treated using
CC these methods. Host cells and vectors carrying nucleic acid encoding
CC a TCR (or individual alpha or beta chain fragment) are useful in
CC pharmaceutical compositions to prevent or treat cancer in a mammal, e.g.
CC lung, melanoma, ovarian, colon, brain or kidney tumours.
SQ Sequence 10 AA;

Query Match 100.0%; Score 46; DB 1; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.002;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 EAAGIGILTV 10
||||||||||
Db 1 EAAGIGILTV 10

RESULT 3
W22039
ID W22039 standard; peptide; 10 AA.
AC W22039;
DT 20-FEB-1998 (first entry)
DE Antigenic MART-1 peptide M10-3.
KW Antigenic peptide; human papillomavirus; MART-1; M10-3; MAGE gene;
KW human immunodeficiency virus; cancer antigen; tyrosinase; signal protein;
KW anthrax lethal factor; LF; toxin; cationic fusion peptide; translocation;
KW gene therapy; polycationic affinity handle; therapeutic protein; LFN.
OS Homo sapiens.
PN WO9723236-A1.
PD 03-JUL-1997.
PF 13-DEC-1996; U20463.
PR 07-JUN-1996; US-019275.
PR 13-DEC-1995; US-008518.
PA (HARD) HARVARD COLLEGE.
PI Ballard JD, Blanke SR, Collier RJ, Lyszak EL, Milne JC;
PI Starnbach MN;
DR WPI; 97-350782/32.
PT Introducing therapeutic proteins, especially antigens, into cells
PT using toxin molecules and/or polycationic handles for delivery
PS Claim 15; Page 37; 67pp; English.
CC This is the antigenic MART-1 peptide M10-3. This antigenic compound
CC can be introduced into the cytoplasm of a cell by a new method where
CC the cell is contacted with a fusion molecule comprising a delivery
CC molecule. The delivery molecule can either be a polycationic affinity
CC handle, LFN (the protective antigen binding domain of anthrax lethal
CC factor) or a toxin delivery molecule related to LFN. The antigenic
CC compound is linked to either of the delivery molecules by a covalent
CC bond. The B moiety of a toxin enhances delivery of the antigenic compound
CC into a cell. The anthrax toxin system of the invention eliminates the
CC need to generate fusion proteins with a toxin B moiety, which alleviates
CC problems associated with incorrect folding of lengthy fusion proteins.
CC Small cationic fusion peptides substituted for LFN may reduce the
CC possibility of steric interference with the biological activity of the
CC translocated protein. The method is used for the introduction of
CC antigens, e.g. MHC class I antigens or any other therapeutic protein,
CC e.g. toxin molecules, apoptosis-inducing molecules or signalling
CC proteins into the cells.
SQ Sequence 10 AA;

Query Match 100.0%; Score 46; DB 1; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.002;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 EAAGIGILTV 10
||||||||||
Db 1 EAAGIGILTV 10

RESULT 4
W32269
ID W32269 standard; peptide; 10 AA.
AC W32269;
DT 13-MAR-1998 (first entry)
DE Tumour rejection antigen #2.
KW Tumour rejection antigen; immunogen; TRA; cytotoxic T cell; CTL;
KW granulyte-macrophage colony stimulating factor; GM-CSF; adjuvant.
OS Homo sapiens.
PN WO9728816-A1.
PD 14-AUG-1997.
PF 28-JAN-1997; U01249.
PR 09-FEB-1996; US-598909.
PA (LUDW-) LUDWIG INST CANCER RES.
PI Jager E, Knuth A;
DR WPI; 97-415070/38.
PT Composition containing immunogen and granulocyte macrophage colony
PT stimulating factor as adjuvant - particularly for generating a
PT cytotoxic T cell response to tumour antigens or their precursors
PS Claim 7; Page 12; 37pp; English.
CC This sequence represents a specifically claimed example of a tumour
CC rejection antigen (TRA) which was used with granulocyte macrophage
CC colony-stimulating factor (GM-CSF) as adjuvant to generate an immune,
CC specifically cytolytic T cell (CTL), response for treatment of cancers
CC or where cell transformation has occurred, e.g. in melanoma or dysplastic
CC nevi. These tumour rejection antigens can also be used diagnostically (if
CC they can induce CTL or antibodies specific for the antigens then this
CC indicates presence of the antigen in the patient). GM-CSF provokes, or
CC increases, immune response to the tumour rejection antigens.
SQ Sequence 10 AA;

Query Match 100.0%; Score 46; DB 1; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.002;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 EAAGIGILTV 10
||||||||||
Db 1 EAAGIGILTV 10

RESULT 5
W39447
ID W39447 standard; peptide; 10 AA.
AC W39447;
DT 11-JUN-1998 (first entry)
DE Human HLA-A*0201 immunogenic peptide 10-mer.
KW T cell epitope; immune response; human leukocyte antigen; HLA Class I;
KW vaccine; immunogenic; major histocompatablilty complex; MHC; B cell;
KW disease; anti-tumour; anti-viral.
OS Synthetic.
OS Homo sapiens.
PN WO9741440-A1.

PD 06-NOV-1997.
PF 28-APR-1997; NL0229.
PR 23-DEC-1996; EP-203670.
PR 26-APR-1996; EP-201145.
PA (UYLE-) RIJKSUNIV LEIDEN.
PA (SCIS-) SCI SEED CAPITAL INVESTMENTS BV.
PI Kast WM, Melief CJM, Offringa R, Toes REM, Van Der Burg SH;
DR WPI; 97-549891/50.
PT Method of selecting T cell peptide epitope(s) - by measuring the
PT stability of HLA class I-peptide complexes on intact B cells
PS Example 3; Page 29; 109pp; English.
CC Peptides W39430-W39734 are used in a novel method for the selection of
CC immunogenic T-cell peptide epitopes present in polypeptide antigens. The
CC method involves the identification of peptide sequences capable of
CC binding to an HLA (human leukocyte antigen) class I molecule and
CC measuring the binding of this epitope peptide to the HLA class I peptide.
CC The stability of binding of the peptide and MHC (major histocompatablilty
CC complex) class I molecule is measured on intact human B cells carrying
CC the MHC molecule at their cell surfaces. The method can be used to select
CC peptide epitopes for generating vaccines against a disease associated
CC with the polypeptide, e.g. cancers or AIDS. The peptide epitopes are
CC especially T-cell peptide epitopes with strong anti-tumour and anti-viral
CC immune responses. Peptide W39447 is an immunodominant peptide-epitope
CC presented by HLA-A*0201-positive melanoma cells and displays considerable
CC binding to HLA-A*0201 in assays.
SQ Sequence 10 AA;

Query Match 100.0%; Score 46; DB 1; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.002;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 EAAGIGILTV 10
||||||||||
Db 1 EAAGIGILTV 10

RESULT 6
W54809
ID W54809 standard; peptide; 10 AA.
AC W54809;
DT 29-SEP-1998 (first entry)
DE Peptide 1 from Mart-1/Melan-A.
KW Mannose; antigen; antigen-presenting cell; mannosylated peptide; T cell;
KW vaccine; treatment.
OS Synthetic.
PN WO9813378-A1.
PD 02-APR-1998.
PF 25-SEP-1997; NL0536.
PR 26-SEP-1996; EP-202701.
PA (UYLE-) RIJKSUNIV LEIDEN.
PI Drijfhout JW, Koning F;
DR WPI; 98-230631/20.
PT Increasing uptake and presentation of antigen(s) - by adding mannose
PT residue(s) to antigen for increasing T cell response, useful in,
PT e.g. vaccines against viral infection(s)
PS Disclosure; Page 25; 47pp; English.
CC The peptides W54559-W54809 are examples of peptides to which at least 1
CC (preferably 2) mannose can be attached to increase their uptake as
CC antigens by antigen-presenting cells. Uptake of agonist mannosylated
CC peptides will increase the T cell response, whereas uptake of antagonist
CC peptides blocks the T cell response. Blocking binding of immunogenic
CC autoantigens can be used in treatment of type I diabetes, rheumatoid
CC arthritis, graft rejection etc., also to induce T-cell non-
CC responsiveness. Vaccines containing mannosylated antigen are used to
CC prevent or treat infections by, e.g. bacteria, viruses, fungi, helminths
CC and parasites.
SQ Sequence 10 AA;

Query Match 100.0%; Score 46; DB 1; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.002;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 EAAGIGILTV 10
||||||||||
Db 1 EAAGIGILTV 10

RESULT 7
W98939
ID W98939 standard; peptide; 10 AA.
AC W98939;
DT 06-MAY-1999 (first entry)
DE Human leukocyte antigen A2 molecule binding peptide SEQ ID NO:1.
KW Human leukocyte antigen; HLA; HLA-A2 binding peptide; T cell;
KW cytolytic T cell; CTL.
OS Synthetic.
OS Homo sapiens.
PN WO9858951-A1.
PD 30-DEC-1998.
PF 18-JUN-1998; U12879.
PR 16-APR-1998; US-061388.
PR 23-JUN-1997; US-880963.
PA (LUDW-) LUDWIG INST CANCER RES.
PI Cerottini J, Romero P, Valmori D;
DR WPI; 99-105609/09.
PT New decamer peptides which bind to HLA molecules - useful to
PT identify HLA-A2 positive cells and provoke T cells
PS Claim 18; Page 6; 45pp; English.
CC The present invention describes peptides which bind to an HLA-A2
CC molecule and have Val at the carboxy terminus, and either: (a) Ala, Tyr
CC or Phe at the amino terminus, and Ala at position 2 (P1); or (b) Glu at
CC the amino terminus, and Ala, Leu, or Met at positions 2 and 3, with the
CC proviso that Ala is not at both positions (P2). The present sequence
CC represents an HLA-A2 binding peptide. The peptides of the present
CC invention are used to identify HLA-A2 positive cells, provoke T cells,
CC and determine the presence of particular T cells including cytolytic
CC T cells (CTLs). They provide a better target than the prior art
CC CTL-stimulating peptide.
SQ Sequence 10 AA;

Query Match 100.0%; Score 46; DB 1; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.002;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 EAAGIGILTV 10
||||||||||
Db 1 EAAGIGILTV 10

RESULT 8
Y00712
ID Y00712 standard; peptide; 10 AA.
AC Y00712;
DT 12-MAY-1999 (first entry)
DE Tumour antigen booster peptide Melan-AMART-1 HLA-A2 #1.
KW Tumour antigen; booster peptide; immune response modulation; allergy;
KW immune response enhancer; tumour cell; tumour rejection antigen;
KW leukocyte antigen-presenting molecule; autoimmune disease;
KW allograft rejection.
OS Homo sapiens.
PN WO9858956-A2.
PD 30-DEC-1998.
PF 19-JUN-1998; U12894.
PR 23-JUN-1997; US-880979.
PA (LUDW-) LUDWIG INST CANCER RES.
PI Boon-Falleur T, Uyttenhove C, Warnier G;
DR WPI; 99-105612/09.
PT Immunization methods using viruses expressing antigen for priming
PT and booster immunizations - useful for modulating immune responses
PT against antigen, e.g. enhancing immune response against tumour cells
PT expressing tumour rejection antigens
PS Disclosure; Page 10; 33pp; English.
CC This sequence represents a tumour antigen booster peptide that can be

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CC   used in the method of the invention. The method is for for modulating an
CC   immune response in a mammal against an antigen, and comprises:
CC   (A) inducing an immune response by: (i) administering a virus containing
CC   a nucleic acid molecule encoding the antigen or its precursor to generate
CC   an immune response; and (ii) administering at least one booster dose
CC   comprising a peptide including the antigen, in an adjuvant, in a combined
CC   amount effective to enhance the initial immune response; or
CC   (B) reducing an immune response as defined for (A) but using a
CC   non-adjuvant with the peptide which includes the antigen, in an amount
CC   effective to reduce the initial immune response. Method (A) is used to
CC   enhance the immune response against tumour cells expressing tumour
CC   rejection antigens, and against pathogens in subjects having human
CC   leukocyte antigen-presenting molecules. Method (B) is used to reduce the
CC   immune response in allergy, autoimmune disease, and allograft rejection.
CC   Method (A) provides an immunisation method which, unlike prior art, is
CC   not limited by the host immune response against viral vectors.
SQ   Sequence   10 AA;


  Query Match             100.0%;  Score 46;  DB 1;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.002;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 EAAGIGILTV 10
          ||||||||||
Db      1 EAAGIGILTV 10


RESULT   9
Y01750
ID   Y01750 standard; Peptide; 10 AA.
AC   Y01750;
DT   25-JUN-1999  (first entry)
DE   Exemplary antigenic peptide derived from Melan-A(MART-1).
KW   MAGE-3; tumour associated gene; human leucocyte antigen Class II;
KW   autologous CD4+ cell; MAGE-3 related disease; cancer; melanoma;
KW   osteosarcoma; leukemia; carcinoma.
OS   Homo sapiens.
PN   WO9914326-A1.
PD   25-MAR-1999.
PF   04-SEP-1998; U18601.
PR   12-SEP-1997; US-928615.
PA   (LUDW-) LUDWIG INST CANCER RES.
PA   (UYVR-) UNIV VRIJE BRUSSEL.
PI   Boon-Falleur T, Chaux P, Corthals J, Heirman C,
PI   Luiten R, Stroobant V, Thielemans K, Van Der Bruggen P;
DR   WPI; 99-244031/20.
PT   Isolated peptides that bind to human leucocyte antigen class II
PT   molecules
PS   Disclosure; Page 29; 88pp; English.
CC   The present sequence represents an exemplary tumour associated peptide
CC   antigen. The specification describes a MAGE-3 tumour associated gene.
CC   Peptides (Y01721-25) that bind human leucocyte antigen (HLA) Class II
CC   molecules can be derived from the MAGE-3 protein. These peptides and
CC   autologous CD4+ cells that bind to a complex of MAGE-3 peptide
CC   and HLA Class II, are used to treat MAGE-3 related diseases,
CC   particularly cancers (e.g. melanoma, osteosarcoma, leukemia and
CC   various forms of carcinoma). The peptides are also used to produce
CC   specific antibodies. Detection of of the peptides, e.g. in binding
CC   assays, particularly with antibodies, is used for diagnosis of such
CC   diseases.
SQ   Sequence   10 AA;


  Query Match             100.0%;  Score 46;  DB 1;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.002;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 EAAGIGILTV 10
          ||||||||||
Db      1 EAAGIGILTV 10


RESULT  10
R84196
ID   R84196 standard; Peptide; 9 AA.
AC   R84196;
DT   20-APR-1996  (first entry)
DE   MART-1 melanoma antigen immunogenic peptide M9-2.
KW   MART-1; M9-2; melanoma antigen recognised by T-cells; melanoma;
KW   metastatic melanoma; tumour-associated antigen;
KW   immunogenic peptide; diagnosis; prognosis; prophylaxis;
KW   therapy; vaccine.
OS   Synthetic.
PN   WO9529193-A2.
PD   02-NOV-1995.
PF   21-APR-1995; U05063.
PR   22-APR-1994; US-231565.
PR   05-APR-1995; US-417174.
PA   (USSH ) US SEC DEPT HEALTH.
PI   Kawakami Y,  Rosenberg SA;
DR   WPI; 95-382963/49.
PT   DNA encoding melanoma antigens recognised by T-lymphocytes - also
PT   vectors, host cells and antibodies, used to detect, treat and
PT   immunise animal against melanoma.
PS   Claim 12; Page 117; 184pp; English.
CC   Immunogenic peptide M9-2 is based on the melanoma antigen (MART-1)
CC   (see R84212).  M9-2 may be modified to improve immunogenicity
CC   (see R84783-R84800) and used in medicaments for the treatment or
CC   prevention (by immunization) of melanoma.  Antibodies against MART-1
CC   and its immunogenic peptides may be used in the detection and
CC   isolation of MART-1 from a sample, the detection of which is
CC   indicative of a disease state (melanoma or metastatic melanoma).
SQ   Sequence   9 AA;


  Query Match             89.1%;  Score 41;  DB 1;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 1.5e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      2 AAGIGILTV 10
          |||||||||
Db      1 AAGIGILTV 9


RESULT  11
W07379
ID   W07379 standard; Peptide; 9 AA.
AC   W07379;
DT   28-JUL-1997  (first entry)
DE   MART-1 epitope recognised by melanoma specific T cell receptor.
KW   T cell; receptor; lymphocyte; alpha; beta chain; V; variable;
KW   J; joining; D; diversity; gene segment; probe; detection;
KW   recombination; melanoma; cancer; neoplasia; tumour; diagnosis;
KW   MART; Melanoma Antigen Recognised by T lymphocyte.
OS   Homo sapiens.
PN   WO9630516-A1.
PD   03-OCT-1996.
PF   27-MAR-1996; U04143.
PR   27-MAR-1995; US-411098.
PA   (USSH ) US DEPT HEALTH & HUMAN SERVICES.
PI   Hwu P,  Nishimura M,  Rosenberg SA;
DR   WPI; 96-485449/48.
PT   T cell receptor alpha and/or beta chains, and related nucleic acids
PT   - useful in pharmaceutical compsns. to prevent or treat cancer,
PT   partic. lung, melanoma, ovarian, colon, brain or kidney tumours
PS   Example 3; Page 11; 125pp; English
CC   W07378-W07381 are MART-1 epitopes, M9-1, M9-2, M10-3 and M10-4
CC   respectively, that are recognised by melanoma specific T lymphocyte
CC   receptors (TCRs). Melanoma-specific TCRs comprising an alpha and
CC   beta chain were made. Nucleic acids from either of these chains can be
CC   used as probes for the detection of expression of rearranged genes
CC   encoding tumour-associated antigens. The nucleic acids may also be used
CC   to create transgenic animals, useful as biological models tc study cancer
CC   and evaluate diagnostic and therapeutic methods for the treatment of
CC   cancers, particularly melanomas. Antibodies (Abs) may be raised against
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CC alpha and beta chain polypeptides and used to detect native or denatured
CC TCRs and/or alterations in expression levels of T cells carrying
CC melanoma-specific TCRs. Abs can also purify and enrich T cells carrying
CC the above receptors, which can then be administered therapeutically to
CC mammals. Anti-idiotype antibodies can be used to assess the level of a
CC specific T cell carrying these receptors in a mammal being treated using
CC these methods. Host cells and vectors carrying nucleic acid encoding
CC a TCR (or individual alpha or beta chain fragment) are useful in
CC pharmaceutical compositions to prevent or treat cancer in a mammal, e.g.
CC lung, melanoma, ovarian, colon, brain or kidney tumours.
SQ Sequence 9 AA;

Query Match 89.1%; Score 41; DB 1; Length 9;
Best Local Similarity 100.0%; Pred. No. 1.5e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 AAGIGILTV 10
|||||||||
Db 1 AAGIGILTV 9

RESULT 12
W35512
ID W35512 standard; peptide; 9 AA.
AC W35512;
DT 22-APR-1998 (first entry)
DE MART-1/Melan-A protein peptide SEQ ID NO:44 from WO9738011.
KW T-cell stimulatory peptide; immunogen; non-dendritic; carrier; tumour;
KW scaffold; inhibition; metastasis; wound healing; solid phase.
OS Unidentified.
PN WO9738011-A1.
PD 16-OCT-1997.
PF 03-APR-1997; D00146.
PR 03-APR-1996; DK-000398.
PA (PEPR-) PEPRESEARCH AS.
PI Heegaard PMH, Jakobsen PH;
DR WPI; 97-512645/47.
PT Non-dendritic peptide carrier linked to a solid phase - useful as a
PT diagnostic agent and as a scaffold for production of chemical
PT derivatives
PS Example 26; Page 146; 262pp; English.
CC A non-dendritic peptide carrier (A) has been developed which is coupled
CC through a linker to a solid phase, forming a complex of (A)-solid phase.
CC Where (A) comprises 10-50 amino acids capable of forming a secondary
CC structure in a benign buffer after liberation from the solid phase, and
CC further the (A)-solid phase complex comprises an immunogenic substance
CC and/or an immune mediator coupled on (A). The present sequence
CC represents a peptide used in an example from the present invention. An
CC (A)-solid phase complex can be used as a scaffold for the production of
CC chemical derivatives, characterised by covalently attaching molecules at
CC attachment points. Alternatively (A) is used as a scaffold-peptide for
CC the incorporation into an Immunostimulating Complex (Iscom) resulting an
CC (A)-Iscom complex which is used for the chemical coupling of antigenic
CC substances in an aqueous solution by conjugation. (A) derivatised with
CC one or more peptides having fibronectin-, laminin- or vitronectin-like
CC binding activities can be used for the promotion of cell-attachment to
CC plastic surfaces, in particular to inhibit tumour growth and metastasis,
CC and for promotion of wound healing. Also a derivatised (A) can be used
CC for the selection of specifically-binding aptamers or as a diagnostic
CC agent. Such diagnostic-(A) molecules could be used to detect molecules
CC derived from or indicative of pregnancy or of a disease, such as an
CC infectious, autoimmune or cancerous disease.
SQ Sequence 9 AA;

Query Match 89.1%; Score 41; DB 1; Length 9;
Best Local Similarity 100.0%; Pred. No. 1.5e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 AAGIGILTV 10
|||||||||
Db 1 AAGIGILTV 9

RESULT 13
W39430
ID W39430 standard; peptide; 9 AA.
AC W39430;
DT 11-JUN-1998 (first entry)
DE Human immunogenic T cell epitope 1.
KW T cell epitope; immune response; human leukocyte antigen; HLA Class I;
KW vaccine; immunogenic; major histocompatablilty complex; MHC; B cell;
KW disease; anti-tumour; anti-viral.
OS Synthetic.
OS Homo sapiens.
PN WO9741440-A1.
PD 06-NOV-1997.
PF 28-APR-1997; NL0229.
PR 23-DEC-1996; EP-203670.
PR 26-APR-1996; EP-201145.
PA (UYLE-) RIJKSUNIV LEIDEN.
PA (SCIS-) SCI SEED CAPITAL INVESTMENTS BV.
PI Kast WM, Melief CJM, Offringa R, Toes REM, Van Der Burg SH;
DR WPI; 97-549891/50.
PT Method of selecting T cell peptide epitope(s) - by measuring the
PT stability of HLA class I-peptide complexes on intact B cells
PS Disclosure; Page 6; 109pp; English.
CC Peptides W39430-W39734 are used in a novel method for the selection of
CC immunogenic T-cell peptide epitopes present in polypeptide antigens.
CC Peptides W39430 and W39431 are derived from MART-1. The method involves
CC the identification of peptide sequences capable of binding to an HLA
CC (human leukocyte antigen) class I molecule and measuring the binding of
CC this epitope peptide to the HLA class I peptide. The stability of binding
CC of the peptide and MHC (major histocompatablilty complex) class I
CC molecule is measured on intact human B cells carrying the MHC molecule at
CC their cell surfaces. The method can be used to select peptide epitopes
CC for generating vaccines against a disease associated with the
CC polypeptide, e.g. cancers or AIDS. The peptide epitopes are especially
CC T-cell peptide epitopes with strong anti-tumour and anti-viral immune
CC responses.
SQ Sequence 9 AA;

Query Match 89.1%; Score 41; DB 1; Length 9;
Best Local Similarity 100.0%; Pred. No. 1.5e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 AAGIGILTV 10
|||||||||
Db 1 AAGIGILTV 9

RESULT 14
W42523
ID W42523 standard; peptide; 9 AA.
AC W42523;
DT 22-JUN-1998 (first entry)
DE Melan A/MART epitope (residues 27-35).
KW Metastatic melanoma; peptide analogue; vaccine; cancer; diagnosis;
KW antigen; CTL; immunogenic; viral disease; gp 100; Melan A/MART-1.
OS Synthetic.
OS Homo sapiens.
PN WO9802538-A1.
PD 22-JAN-1998.
PF 08-JUL-1997; E03712.
PR 11-JUL-1996; EP-201945.
PA (ALKU) AKZO NOBEL NV.
PI Adema GJ, Figdor CG;
DR WPI; 98-110586/10.
PT Melanoma associated peptide analogues - useful in vaccines against
PT melanoma
PS Example 1; Page 28; 47pp; English.
CC This sequence is shown in the specification. The invention relates to
CC peptides, which are immunogenic with lymphocytes directed against
CC metastatic melanomas. They are characterised in that they comprise at

CC least a part of the following sequence, where the amino acid at position
CC 2 or 8 is substituted: Lys-Thr-Trp-Gly-Gln-Tyr-Trp-Gln-Val. Vaccines
CC comprising the peptide, an epitope of the peptide, nucleotide sequence
CC encoding the peptide, or an antigen presenting cell preloaded with the
CC peptide or antibody as above, are useful for cancer, particularly
CC melanoma, treatment. The peptides can also be used to generate antigen
CC reactive tumour infiltrating lymphocytes, which can also be used in
CC vaccines. The peptides can be exploited to elicit native epitope-reactive
CC CTL. Usage of the peptides with improved immunogenicity may contribute
CC to the development of CTL-epitope based vaccines in viral disease and
CC cancer.
SQ Sequence 9 AA;

Query Match 89.1%; Score 41; DB 1; Length 9;
Best Local Similarity 100.0%; Pred. No. 1.5e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 AAGIGILTV 10
|||||||||
Db 1 AAGIGILTV 9

RESULT 15
W54602
ID W54602 standard; peptide; 9 AA.
AC W54602;
DT 25-SEP-1998 (first entry)
DE Peptide 1 from Melan-A/Mart-1.
KW Mannose; antigen; antigen-presenting cell; mannosylated peptide; T cell;
KW vaccine; treatment.
OS Synthetic.
PN WO9813378-A1.
PD 02-APR-1998.
PF 25-SEP-1997; NL0536.
PR 26-SEP-1996; EP-202701.
PA (UYLE-) RIJKSUNIV LEIDEN.
PI Drijfhout JW, Koning F;
DR WPI; 98-230631/20.
PT Increasing uptake and presentation of antigen(s) - by adding mannose
PT residue(s) to antigen for increasing T cell response, useful in,
PT e.g. vaccines against viral infection(s)
PS Disclosure; Page 24; 47pp; English.
CC The peptides W54559-W54809 are examples of peptides to which at least 1
CC (preferably 2) mannose can be attached to increase their uptake as
CC antigens by antigen-presenting cells. Uptake of agonist mannosylated
CC peptides will increase the T cell response, whereas uptake of antagonist
CC peptides blocks the T cell response. Blocking binding of immunogenic
CC autoantigens can be used in treatment of type I diabetes, rheumatoid
CC arthritis, graft rejection etc., also to induce T-cell non-
CC responsiveness. Vaccines containing mannosylated antigen are used to
CC prevent or treat infections by, e.g. bacteria, viruses, fungi, helminths
CC and parasites.
SQ Sequence 9 AA;

Query Match 89.1%; Score 41; DB 1; Length 9;
Best Local Similarity 100.0%; Pred. No. 1.5e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 AAGIGILTV 10
|||||||||
Db 1 AAGIGILTV 9

Search completed: September 22, 2000, 21:15:19
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